

REMARKS

Applicant concurrently files herewith a petition and fee for a one (1)-month extension of time.

Claims 1-16 are all the claims presently pending in the Application. Claims 1, 5, and 7-12 stand rejected for informalities and claims 1-12 stand rejected on prior art grounds. New claims 13-16 have been added to claim additional features of the invention. This Amendment amends claims 1-12.

It is noted that any claim amendments are made to merely clarify the language of each claim, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. It is further noted that, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Regarding the prior art rejections, claims 1-12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Barber et al (U.S. Patent No. 6,535,906). The rejection is respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

Applicant's invention, as disclosed and defined in claim 1, is directed to a method for reducing facsimile page errors due to packet loss in facsimile transmission

over a packet network that includes receiving facsimile image data packets from a packet network, reassembling the received packets, parsing the assembled packets into scan line data of the facsimile image, evaluating the scan line data to detect the expected end of a scan line without packet loss, playing out the scan line data to a local Facsimile Terminal Equipment if the scan line data has no packet loss, and discarding the scan line data if the scan line data has packet loss.

II. THE PRIOR ART REJECTION

The Examiner alleges that claims 1-12 stand rejected as anticipated by Barber. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by the reference.

THE BARBER REFERENCE

The Examiner alleges that column 3, line 60 to column 5, line 65, "wherein packet loss is detected when the buffer 32 is overfilled or underfilled with scan line data, based upon the data exceeding a preselected range" discloses "evaluating said scan line data to detect the expected end of a scan line *without packet loss*," as recited in claim 1 (emphasis Applicant's). However, these passages from Barber merely describe using "a buffer 32 for storing the generated scan lines" (col. 3, lines 55-56), not to determine if a *packet loss* has occurred at the expected end of a scan line. In Barber, the data processor 34 "processes the buffer data if the total amount of data in the buffer

32 is outside a preconfigured range." (col. 3, lines 60-63). The processor determines "if the total amount of data in the buffer 32 is within a preselected size range," and if the amount of data is "not within this range, then data in the outgoing data stream is altered to minimize the effects of the overfilled or underfilled buffer 32." (col. 5, lines 5-10)

The purpose of Barber's disclosure is to solve a problem of receiving a facsimile over the Internet at a "preselected data rate required by a given transmission." (col. 1, lines 35-40). This is a different problem addressed by a different technique than the present invention. Barber attempts to disclose a "method of controlling the effect of *delay* on a document (e.g., packet data) transmitted across a network," (col. 2, lines 28-29), not compensating for a packet loss, as described in claim 1.

Contrary to the Examiner's assertions, packet loss is *not* detected when the buffer 32 is overfilled or underfilled with scan line data, based upon the data exceeding a preselected range. If the data in Barber exceeds the preselected size range, the buffer overfills, and the process, in step 408, deletes scan lines from the buffer (col. 5, lines 13-15). There is no teaching or suggestion for evaluating scan line data "to detect the expected end of a scan line *without packet loss*," as recited in claim 1. On the contrary, instead of detecting packet losses, Barber scans for a buffer overrun of excess data packets, and if an overrun or overfill occurs, deletes the excess scan lines (i.e. deletes excess packets) when too many scan lines are received too quickly into the buffer (col. 5, lines 14-16). As described above, Barber's method is used in order to transmit the facsimile data at a *preselected data rate* out of the buffer (see col. 4, lines 55-60: "the size of the line segment and frequency of data removal from the buffer 32 is

selected to ensure that a *preselected data rate* (e.g., 28.8 BPS) can be maintained by the data pump 36”), not to search for lost packets. Thus, Barber does not teach or suggest to detected the expected end of a scan line *without packet loss*.

The Examiner further alleges that Fig. 4, step 408 and column 5, lines 13-50 of Barber disclose “discarding said scan line data *if the scan line data has packet loss*,” as recited in claim 1, because “when fill bits are included in the received packet in Barber, the buffer 32 overflows, as the amount of stored data in the buffer 32 increases to a point that exceeds the maximum value when an ‘end of scan line indicator’ is received.” (O.A., p. 4) However, these passages from Barber describe deleting scan lines due to a *buffer overrun*, not due to lost packets. In a non-limiting exemplary embodiment of the present invention, if a packet loss is expected before the end of a scan line, then a portion of the image lost due to packet loss is removed from the image and the remaining image is shifted up. (Application, p. 8, lines 16-18). The claimed method of discarding data “*if the scan line data has packet loss*,” as recited in claim 1, is a far different technique than deleting selected scan lines from an overfilled buffer 32 “*if greater than the preconfigured maximum value*.” (col. 5, lines 14-15)

The Examiner’s rejection of the claim element “discarding the scan line data if the scan line data has packet loss” does not state that Barber actually discloses this element. Contrary to the Examiner’s assertions, the buffer 32 does not overflow “when fill bits are included in the received packet.” Instead, Barber discloses how, when the amount of data that is received into the buffer 32 exceeds the amount of memory allocated to the buffer, then the buffer overflows. (col. 5, lines 5-20) Barber simply

deletes scan lines due to an overrun of an arbitrary setting of memory in the buffer ("this [preconfigured] range may be easily reconfigured by a reconfiguration manager application"). (col. 3, lines 60-67) Barber fails to teach that overfilling of the buffer due to too much data entering the buffer somehow indicates that there are lost packets in the data transmission. Thus, there is no teaching or suggestion of "*discarding said scan line data if said scan line data has packet loss,*" as recited in claim 1.

The Examiner further alleges that column 5, line 58 through column 6, line 31 discloses replacing the discarded scan line data with a repetition of the previous scan line. However, these passages merely disclose that a copy of a removed or deleted scan line is re-sent to the receiving fax if buffer 32 falls below a minimum value: "one additional copy of each removed scan line is transmitted (in addition to the original of each scan line)." (col. 6, lines 15-18) There is no teaching or suggestion in Barber of "*replacing said discarded scan line data with a repetition of the previous scan line,*" as recited in claim 4 (and substantially in claim 10). At step 418 in the process, Barber discloses that after a timeout occurs from adding additional zero slip bits into the data stream, the previously deleted scan line (due to a buffer overfill in col. 5, lines 13-15) is "re-sent" to the receiving fax (col. 6, line 9) "until the total amount of data in the buffer 32 is greater than the minimum value" (col. 6, line 18-19).

Re-sending a received, but purposefully deleted, scan line to fill a data buffer is a far different technique than replacing a scan line that has been discarded due to corruption with a *repetition of the previous scan line*. Clearly, Barber does not teach or suggest "replacing a discarded scan line data," as recited in claim 4. Barber clearly

discloses a completely contrasting method of *re-sending the same deleted line of data*.

Copying the same line of data is not comparable to *replacing* a deleted line with a *different line of data* (e.g., a repetition of the previous scan line), as recited in claim 4.

Thus, turning to the exemplary language of claim 1 (and substantially in the device of claim 7), there is no teaching or suggestion in the cited reference of "A *method for reducing facsimile page errors due to packet loss in facsimile transmission over a packet network, comprising:*

receiving facsimile image data packets from a packet network;

reassembling said received packets;

parsing said assembled packets into scan line data of said facsimile image;

evaluating said scan line data to detect the expected end of a scan line without packet loss;

playing out said scan line data to a local Facsimile Terminal Equipment (FTE) if said scan line data has no packet loss; and

discarding said scan line data if said scan line data has packet loss." (emphasis Applicant's)

For at least the reasons stated above, Applicant respectfully submits that the cited references fail to teach or suggest every feature of claims 1-16. Therefore, the subject matters of claims 1-16 are fully patentable over the cited references.

Based on the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejection.

Appl. No. 09/560,167
Amdt. dated Feb. 4, 2004
Reply to Office Action of Oct. 24, 2003

III. FORMAL MATTERS AND CONCLUSION

Applicant has revised the specification and claims 1, 5, and 7-12 to overcome the Examiner's objections.


In view of the foregoing, Applicant submit that claims 1-16, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above Application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner may contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview. The commissioner is hereby authorized to charge any fees to Client's Deposit Account No. 20-0668.

Respectfully Submitted,

Date:

Feb. 4, 2004


Kendal M. Sheets, Reg. No. 47,077
Joseph J. Zito, Reg. No. 32,076
ZITO tlp, Customer Number 23593
26005 Ridge Road, Suite 203
Damascus, MD 20872
(301) 601-5010

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: the Commissioner for Patents, United States Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450 on February 4, 2004.

 2/4/04
Kendal M. Sheets Date